

CLIMATE AND CROP SERVICE.

By JAMES BERRY, Chief of Climate and Crop Service Division.

The following extracts relating to the general weather conditions in the several States and Territories are taken from the monthly reports of the respective sections of the Climate and Crop Service. The name of the section director is given after each summary.

Rainfall is expressed in inches and temperature in degrees Fahrenheit.

Alabama.—The mean temperature was 55.2°, or 1.6° above normal; the highest was 86°, at Thomasville on the 3d, and the lowest, 23°, at Madison and Valleyhead on the 9th. The average precipitation was 3.88, or 0.46 above normal; the greatest monthly amount, 7.80, occurred at Opelika, and the least, 1.01, at Daphne.

The month was very favorable for all farm work; considerable plowing has been done and about the usual acreage has been sown to wheat, much of which has germinated and is in good condition; an increased acreage has been devoted to oats, some of which is up to good stands and growing nicely.—*F. P. Chaffee.*

Arizona.—The mean temperature was 56.9°, or 2.6 above normal; the highest was 97°, at Aztec on the 4th, and the lowest, 13°, at Flagstaff on the 12th. The average precipitation was 1.60, or 0.87 above normal; the greatest monthly amount, 7.87, occurred at Pinal Ranch, while none fell at Cochise, Gila Bend, and Pantana.—*L. M. Day, Jr.*

Arkansas.—The mean temperature was 51.4°, or 0.7° above normal; the highest was 90°, at Camden on the 3d, and the lowest, 18°, at Pond on the 12th. The average precipitation was 4.28, or 0.25 above normal; the greatest monthly amount, 9.39, occurred at Lonoke, and the least, 1.79, at Arkansas City.

Wheat is coming up to good stands and is looking well; the acreage is smaller than last year, except in the northwest section where it is about the average. The hessian fly is doing some damage.—*E. B. Richards.*

California.—The mean temperature was 54.7°, or 2.5° above normal; the highest was 102°, at Irvine on the 11th, and the lowest, 4° below zero, at Bodie on the 27th and 28th. The average precipitation was 5.21, or 2.96 above normal; the greatest monthly amount, 18.91, occurred at Summerdale, while none fell at Mammoth Tank, Ogilby, and Salton.—*A. G. McAfee.*

Colorado.—The mean temperature was 37.9°, or 2.9° above normal; the highest was 85°, at Blaine on the 2d and 5th, and the lowest, 18° below zero, at Troutvale on the 29th. The average precipitation was 0.45, or 0.26 below normal; the greatest monthly amount, 2.43, occurred at Mancos, while none fell at Boxelder, Las Animas, and Blaine.—*F. H. Brandenburg.*

Florida.—The mean temperature was 64.5°, or 1.2° below normal; the highest was 92°, at Nocatee on the 2d, and the lowest, 27°, at Sumner on the 13th. The average precipitation was 1.31, or 0.77 below normal; the greatest monthly amount, 3.53, occurred at St. Andrews Bay, and the least, 0.10, at Clermont.—*A. J. Mitchell.*

Georgia.—The mean temperature was 55.8°, or 0.9° above normal; the highest was 86°, at Waycross on the 1st, 19th, and 21st, and at Maury on the 21st, and the lowest, 18°, at Dahlonga on the 9th. The average precipitation was 3.39, or 0.47 above normal; the greatest monthly amount, 6.61, occurred at Allentown, and the least, 1.25, at Allapaha.

The month, as a whole, was regarded as favorable to farming interests, and much wheat has been sown.—*J. B. Marbury.*

Idaho.—The mean temperature was 35.2°, or 0.3° below normal; the highest was 73°, at Garnet on the 3d, and the lowest, 20° below zero, at Kootenai on the 19th. The average precipitation was 1.51, or 0.39 below normal; the greatest monthly amount, 3.16, occurred at St. Maries, and the least, 0.39, at Forney.—*S. M. Blandford.*

Illinois.—The mean temperature was 41.2°, or 0.8° above normal; the highest was 83°, at St. John on the 22d, and the lowest, 2°, at Scales Mound on the 15th. The average precipitation was 2.92, or about normal; the greatest monthly amount, 6.52, occurred at Raum, and the least, 0.91, at Coatsburg.

The weather has, in general, been very favorable for the growth of wheat, and its average condition at the end of the month was excellent. The hessian fly has caused some damage; early sown wheat suffered more from the fly than later sown. Pastures are generally in fine condition and are still offering good feed for cattle. Meadows look green and have made good and healthy growth during the fall.—*M. E. Blystone.*

Indiana.—The mean temperature was 42.8°, or 1.5° above normal; the highest was 81°, at Mount Vernon on the 21st, and the lowest, 9°, at South Bend on the 16th. The average precipitation was 4.26, or 0.43 above normal; the greatest monthly amount, 9.15, occurred at Mount Vernon, and the least, 0.80, at Valparaiso.

Wheat is well stooled, deep rooted, and vigorous in growth; in most

fields it covers the ground nicely, and in some it is rank. In the early sown fields the fly is apparently doing injury. Pastures and meadows were green at the close of the month and live stock was in good condition.—*C. F. R. Wappenhans.*

Iowa.—The mean temperature was 33.5°; the highest was 79°, at Galva on the 3d, and the lowest, 6° below zero, at Fonda on the 15th. The average precipitation was 1.06, or 0.36 below normal; the greatest monthly amount, 3.35, occurred at Danville, and the least, trace, at Glenwood and Primghar.

The unusual amount of cloudiness, fog, and misty weather retarded the corn harvest and kept the fields and roads wet and heavy, but the pastures were fine and there was abundant feed for stock.—*J. R. Sage, Director; G. M. Chappel, Assistant.*

Kansas.—The mean temperature was 41.9°, or 0.8° above normal; the highest was 90°, at Hoxie on the 1st and at Wallace on the 3d, and the lowest, 2° below zero, at Achilles on the 21st. The average precipitation was 0.56, or 0.36 below normal; the greatest monthly amount, 2.03, occurred at Columbus, while none fell at Gove, Scott, and Viroqua.

The weather was quite favorable for farm work. Wheat has grown rapidly and is generally in fine condition, though in the extreme northwest counties it has begun to show effects of the drought, and in Ottawa, Saline, Rice, and Cherokee counties there is some complaint of the hessian fly. It is being pastured to prevent stooing.—*T. B. Jennings.*

Kentucky.—The mean temperature was 47.0°, or 0.8° above normal; the highest was 83°, at Warfield on the 1st, and the lowest, 15°, at Maysville on the 15th. The average precipitation was 7.78, or 3.63 above normal; the greatest monthly amount, 11.84, occurred at Hopkinsville, and the least, 4.87, at Henderson.

Quite a serious drought existed over the State up to the 19th and winter wheat suffered considerably, the ravages of the fly being much more serious on account of the drought. The heavy rains from the 19th to the 26th greatly benefited the wheat crop, so that by the end of the month it was in fair condition.—*H. B. Hersey.*

Louisiana.—The mean temperature was 60.3°, or 2.2° above normal; the highest was 92°, at Lake Charles on the 1st and at Donaldsonville on the 21st, and the lowest, 22°, at Oxford and Robeline on the 12th. The average precipitation was 2.91, or 1.35 below normal; the greatest monthly amount, 8.11, occurred at Cheneyville, and the least, 0.48, at Paincourtville.

The weather was very favorable for harvesting such of the farm products as were yet in the field.—*W. T. Blythe.*

Maryland and Delaware.—The mean temperature was 47.7°, or 3.4° above normal; the highest was 81°, at Cumberland, Md., on the 3d, and the lowest, 4°, at Deerpark, Md., on the 16th. The average precipitation was 2.97, or 0.28 below normal; the greatest monthly amount, 6.52, occurred at Sunnyside, Md., and the least, 1.08, at St. Charles College, Md.—*Oliver L. Fassig.*

Michigan.—The mean temperature was 35.1°, or about normal; the highest was 76°, at Berrien Springs, Plymouth, and Stanton on the 1st, and at Ludington on the 5th, and the lowest, 8° below zero, at Humboldt on the 26th. The average precipitation was 3.63, or 1.06 above normal; the greatest monthly amount, 7.67, occurred at Berrien Springs, and the least, 0.20, at Humboldt.—*C. F. Schneider.*

Minnesota.—The mean temperature was 25.4°, or 1.5° below normal; the highest was 72°, at Milan on the 3d, and the lowest, 26° below zero, at Hallock on the 23d. The average precipitation was 0.62 or about 0.40 below normal; the greatest monthly amount, 1.77, occurred at Caledonia, and the least, 0.20, at Blooming Prairie.—*T. S. Outram.*

Mississippi.—The mean temperature was 56.7°, or 1.5° above normal; the highest was 90°, at Columbus on the 23d, and the lowest, 21°, at Jackson on the 26th. The average precipitation was 2.97, or 0.41 below normal; the greatest monthly amount, 8.15, occurred at Natchez, and the least, 0.71, at Bay St. Louis.—*W. S. Belden.*

Missouri.—The mean temperature was 43.5°, or 1.1° above normal; the highest was 84°, at Cook Station on the 22d, and the lowest, 7°, at Maryville on the 21st. The average precipitation was 2.62, or 0.24 above normal; the greatest monthly amount, 8.76, occurred at New Madrid, and the least, 0.20, at Rockport.

Although over most of the central and northern counties there was less precipitation than usual, owing to the heavy rains at the close of October, there was an abundance of moisture for wheat and grasses, except in a few of the eastern counties, where the ground became quite dry during the forepart of the month. The mild temperature was favorable for good growth, and the wheat crop continued in excellent condition, except that in some of the central and southern counties early sown wheat was injured by fly.—*A. E. Hackett.*

Nebraska.—The mean temperature was 35.5°, or 0.8° above normal; the highest was 83°, at Gothenburg on the 5th, and the lowest, 9° below zero, at Ansley and Fort Robinson on the 20th. The average precipitation was 0.15, or 0.53 below normal; the greatest monthly

amount, 0.97, occurred at Minden, while none fell at Madrid and Smithfield.

The dry weather, combined with uniformly moderate temperature, has been favorable for all agricultural interests. All fall sown grain has made good growth, and at the end of the month was in excellent condition.—*G. A. Loveland.*

Nevada.—The mean temperature was 41.0°, or 3.1° above normal; the highest was 78°, at Hawthorne on the 3d and at Candelaria on the 4th, 12th, and 13th, and the lowest, 1°, at Owyhee on the 22d. The average precipitation was 1.34, or 0.77 above normal; the greatest monthly amount, 6.68, occurred at Lewers Ranch, and the least, trace, at Hot Springs.—*J. H. Smith.*

New England.—The mean temperature was 40.0°, or 2.9° above normal; the highest was 74°, at Middletown, Conn., and at Chestnut Hill and Middleboro, Mass., on the 2d, and the lowest, 1° below zero, at Berlin Mills, N. H., on the 28th. The average precipitation was 5.49, or 1.57 above normal; the greatest monthly amount, 10.12, occurred at Vernon, Vt., and the least, 2.96, at South Portsmouth, R. I.—*J. W. Smith.*

New Jersey.—The mean temperature was 47.5°, or 4.0° above normal; the highest was 79°, at Flemington on the 2d and at Salem on 20th, and the lowest, 15°, at Layton and Toms River on the 17th. The average precipitation was 3.43, or 0.56 below normal; the greatest monthly amount, 5.54, occurred at Rivervale, and the least, 1.82, at Cape May C. H.—*E. W. McGann.*

New Mexico.—The mean temperature was 45.6°, or 2.7° above normal; the highest was 80°, at Albert, Fort Union, and Fort Wingate on the 4th and at Mesilla Park on the 8th, and the lowest, 6°, at Springer on the 25th. The average precipitation was 0.45, or 0.20 below normal; the greatest monthly amount, 1.40, occurred at Lyons Ranch, while none was recorded at Albert, Engle, and Raton, and only a trace at Lower Penasco and Springer.—*R. M. Hardinge.*

New York.—The mean temperature was 39.8°, or 2.4° above normal; the highest was 77°, at Walton on the 21st, and the lowest, 2° below zero, at Canton and Watertown on the 16th. The average precipitation was 5.39, or 2.13 above normal; the greatest monthly amount, 8.97, occurred at Number Four, and the least, 2.00, at Lockport.

The weather was generally favorable for winter grain. Wheat and rye made a fine start and were in good condition at the close of the month. Pastures continue green, affording much feed for stock.—*R. G. Allen.*

North Carolina.—The mean temperature was 52.6°, or 3.9° above normal; the highest was 86°, at Sloan on the 1st, and the lowest, 13°, at Highlands on the 9th. The average precipitation was 4.17, or 0.91 above normal; the greatest monthly amount, 8.95, occurred at Kittyhawk, and the least, 2.10, at Salisbury.

A large acreage was seeded to winter wheat, as well as to oats and rye; the seed sprouted nicely and the plants obtained a good start.—*C. F. von Herrmann.*

North Dakota.—The mean temperature was 20.4°, or 2.0° below normal; the highest was 64°, at Power on the 3d and at Fort Yates on the 4th, and the lowest, 29° below zero, at McKinney on the 22d. The average precipitation was 0.32, or 0.38 below normal; the greatest monthly amount, 1.05, occurred at Glenullin, and the least, 0.17, at Steele.—*B. H. Bronson.*

Ohio.—The mean temperature was 41.6°, or 1.0° above normal; the highest was 80°, at Findlay and Greene on the 1st, and the lowest, zero, at Millport on the 16th. The average precipitation was 3.63, or 0.86 above normal; the greatest monthly amount, 7.28, occurred at Thuman, and the least, 2.36, at Philo.

Wheat suffered some from lack of moisture during the first half of the month, but showed decided improvement during the last decade, when there was abundant precipitation with moderate temperature. Early sown wheat, which is only a small percentage of the whole, has been injured by the hessian fly. The late sown germinated slowly and made slow growth during the early part of the month, and consequently is small for the season, but is a good stand, healthy and of good color. The acreage is less than usual. Pastures were improved by the rains, and stock is in good condition generally.—*J. Warren Smith.*

Oklahoma and Indian Territories.—The mean temperature was 50.0°, or 1.6° above normal; the highest was 85°, at Claremore on the 22d, and the lowest, 14°, at Kenton on the 25th. The average precipitation was 1.18, or 0.46 below normal; the greatest monthly amount, 4.10, occurred at Webbers Falls, while none fell at Beaver and Texmo.

The weather was especially favorable for wheat and rye in the ground, and at the close of the month wheat was becoming rank, with some jointing reported. Cattle were being pastured on the wheat and were in fine condition. Cotton picking was in progress throughout the month and much remained to be gathered.—*C. M. Strong.*

Oregon.—The mean temperature was 44.7°, or 0.4° above normal; the highest was 79°, at Toledo on the 12th, and the lowest, 11° below zero, at Dayville on the 21st. The average precipitation was 4.49, or 2.02 below normal; the greatest monthly amount, 12.37, occurred at Falls City, and the least, 0.25, at Prineville.—*E. A. Beals.*

Pennsylvania.—The mean temperature was 43.5°, or 3.2° above normal; the highest was 79°, at Williamsport on the 21st, and the lowest,

7°, at Butler on the 16th. The average precipitation was 4.10, or slightly above normal; the greatest monthly amount, 6.92, occurred at Uniontown, and the least, 1.67, at Browsers Lock.—*L. M. Dey.*

South Carolina.—The mean temperature was 55.6°, or 1.6° above normal; the highest was 92°, at Trial on the 25th, and the lowest, 22°, at Holland on the 9th. The average precipitation was 3.32, or 0.50 above normal; the greatest monthly amount, 5.45, occurred at Spartanburg, and the least, 1.50, at Georgetown.—*J. W. Bauer.*

South Dakota.—The mean temperature was 28.7°, or about 1.0° below normal; the highest was 77°, at Vermillion on the 2d, and the lowest, 12° below zero, at Hotch City on the 21st. The average precipitation was 0.26, or 0.33 below normal; the greatest monthly amount, 0.80, occurred at DeSmet, and the least, trace, at Alexandria, Fort Randall, Mellette, and Plankinton.—*S. W. Glenn.*

Tennessee.—The mean temperature was 49.3°, or 1.1° above normal; the highest was 82°, at Savannah on the 20th, and the lowest, 13°, at Rugby on the 30th. The average precipitation was 6.24, or 2.18 above normal; the greatest monthly amount, 10.74, occurred at Oakhill, and the least, 3.18, at Ashwood.

Warm, dry weather the first half of the month favored the ravages of the hessian fly and many fields of early sown wheat were ruined. Late sown wheat was generally looking well at the close of the month.—*H. C. Bate.*

Texas.—The mean temperature was 59.1°, or 2.4° above normal; the highest was 96°, at Fort McIntosh on the 19th, and the lowest, 22°, at Lampassas on the 12th. The average precipitation was 1.79, or 0.38 below normal; the greatest monthly amount, 8.43, occurred at Trinity, and the least, trace, at Sanderson.

The month, as a whole, was favorable for agricultural interests. Where cotton picking was not completed the work was carried forward under the most favorable conditions, and was generally completed by the middle of the month. The yield of cotton was generally better than anticipated a few months ago, except over the lower Brazos bottoms, where the crop was almost an entire failure. Wheat sowing made good progress and the weather was exceptionally favorable for this work prior to the 17th. The rains which followed over the wheat belt were not heavy enough to materially retard work, but were very favorable for the germination and growth of the crop. Altogether the wheat outlook is very favorable. Sugar cane matured favorably and is being manufactured as rapidly as practicable. Fall truck gardening has progressed nicely.—*I. M. Cline.*

Utah.—The mean temperature was 40.1°, or 3.2° above normal; the highest was 80°, at St. George on the 3d, and the lowest, 1°, at Loa on the 27th, 28th, and 30th. The average precipitation was 1.51, or 0.76 above normal; the greatest monthly amount, 5.07, occurred at Huntsville, and the least, trace, at Cisco.—*L. H. Murdoch.*

Virginia.—The mean temperature was 49.9°, or 4.1° above normal; the highest was 83°, at Petersburg on the 23d, and the lowest, 12°, at Meadowdale on the 16th. The average precipitation was 3.50, or 0.75 above normal; the greatest monthly amount, 7.03, occurred at Bigstone Gap, and the least, 1.12, at Columbia.

The weather during the month was quite favorable; the sunshine was ample and the soil warm. This brought about an excellent growth of the early sown wheat and promoted the rapid germination of the later seedings, so that at the close of the month the crop was in a very promising condition. Where the crop has come up it is green and vigorous, and a generally good stand has been secured.—*E. A. Evans.*

Washington.—The mean temperature was 38.5°, or 1.7° below normal; the highest was 69°, at Southbend on the 12th, and the lowest, 16° below zero, at Ellensburg on the 21st. The average precipitation was 3.52, or 2.54 below normal; the greatest monthly amount, 13.32, occurred at Clearwater, and the least, 0.64, at Mottingers.

The cold of the 18th to 22d was general over the State and was one of the earliest and most severe on record for November.—*G. N. Salisbury.*

West Virginia.—The mean temperature was 45.5°, or 1.9° above normal; the highest was 86°, at Spencer on the 20th, and the lowest, 9°, at Central Station and Philippi on the 16th. The average precipitation was 5.20, or 1.45 above normal; the greatest monthly amount, 8.88, occurred at Princeton, and the least, 2.71, at Magnolia.

The good rains and mild weather that occurred during the latter part of the month gave wheat a good start, and it is now reported to be looking fairly well, with a normal acreage sown, although in some southern sections complaint is made of damage by the fly and grubworm.—*E. C. Vose.*

Wisconsin.—The mean temperature was 30.5°, or 1.9° below normal; the highest was 70°, at Prairie du Chien on the 4th, and the lowest, 7° below zero, at Osceola on the 23d. The average precipitation was 1.59, or slightly below normal; the greatest monthly amount, 4.19, occurred at Racine, and the least, 0.21, at Casco.—*W. M. Wilson.*

Wyoming.—The mean temperature was 33.6°, or 1.6° above normal; the highest was 74°, at Wheatland on the 5th, and the lowest, 15° below zero, at Parkman on the 20th. The average precipitation was 0.39, or 0.27 below normal; the greatest monthly amount, 2.53, occurred at Evanston, while none fell at Lusk and Thermopolis.—*W. S. Palmer.*